세부 프로그램

September 22, 2019 (Sunday) Dae Jang Keum, 7905 Engineer Rd, San Diego, CA 92111		
18:30-		**Welcome Reception**
Day 1		
September 23, 2019 (Monday) Qualcomm Institute, UCSD		
Opening Session Co-chairs: Jo-Won Lee (NNFC) / Myung S. Jhon (CMU)	08:30-09:00	■ **Registration**
	09:00-09:20	■ **Welcoming Remarks** • Mihail Roco (Senior Advisor, National Science Foundation) • Albert Pisano (Dean of Engineering, University of California, San Diego) • Wanho Song (Director, Ministry of Science and ICT)
	09:20-10:20	■ **Keynote Speeches** • Mihail Roco, National Science Foundation – *Several Nanotechnology Trends, Including in Nanomedicine* • Shubhra Gangopadhyay, National Science Foundation – *Bio/Nanotechnology, Sensors and Brain Research Programs at NSF* • Ick Chan Kwon, Korea Institute of Science and Technology – *Activatable Molecular Probes for Optical Imaging*
10:20-10:40		**Coffee Break & Group Photo**
Session I. Nanosensors Related to Human Cognition and Brain Research Co-chairs: Elias Towe (CMU) / Young Ho Cho (KAIST)	10:40-12:46 (18 min/ talk including Q&A)	■ **Introduction**
		• Shadi Dayeh, University of California, San Diego – *Microelectrode Arrays for Clinical Mapping: Considerations and Brain Recordings with 1024 Channel Arrays*
		• Young Ho Cho, Korea Advanced Institute of Science and Technology – *Wearable Human Emotion Monitoring Systems*
		• Michael Sailor, University of California, San Diego – *Peptide-Targeted Porous Silicon Nanoparticles For in vivo Drug Delivery and Sensing*
		• Yoon Kyu Song, Seoul National University – *Implantable Neural Sensors for Brain-Machine Interface*
		• Donglei Fan, University of Texas, Austin – *Design, Assembling and Manipulation of Electric Nanomotors with Ultrahigh Performances*
		• Sang Don Jung, Electronics and Telecommunications Research Institute – *Surface Modification of Neural Electrode with Electro-deposited Nanoparticle for Stimulation Performance Enhancement*
		• Soo Hyun Lee, Korea Institute of Science and Technology – *Nano Gap Sensor using Magnetic Beads for Tau protein to Diagnose Neurodegenerative Disease such as Alzheimer's Disease in Blood*

12:46-13:46		**Lunch & Poster Set-up**
Session I. Nanosensors Related to Human Cognition and Brain Research Co-chairs: Elias Towe (CMU) / Young Ho Cho (KAIST)	13:46-14:22 (18 min/ talk including Q&A)	• Nanshu Lu, University of Texas, Austin - *Wireless Electronic Tattoos*
		• Tae Woo Lee, Seoul National University - *Flexible and Stretchable Organic Artificial Nerves*
Session II. Nanomedicine Focusing on Single Cell Level Co-chairs: Daniel Heller (MSKCC) / Keon Wook Kang (SNU)	14:22-15:34 (18 min/ talk including Q&A)	■ **Introduction**
		• Daniel Heller, Memorial Sloan Kettering Cancer Center - *Non-invasive Nanosensors for Neurodegenerative Disease*
		• Keon Wook Kang, Seoul National University - *in vivo Imaging using Nanoparticles*
		• Hedi Mattoussi, Florida State University - *Interfacing Inorganic Nanocrystals with Biological Systems Using a Coordinating Polymer Coating*
		• Sungjee Kim, Pohang University of Science and Technology - *Quantum Dots for Imaging Applications*
15:34-15:44		**Coffee Break**
Session II. Nanomedicine Focusing on Single Cell Level Co-chairs: Daniel Heller (MSKCC) / Keon Wook Kang (SNU)	15:44-17:32 (18 min/ talk including Q&A)	• Dino Di Carlo, University of California, Los Angeles - *Lab-on-a-particle Technologies Based on Armored Emulsions*
		• Dae Sik Lee, Electronics and Telecommunications Research Institute - *Biomedical Device Technologies for Point of Care Applications; Design, Fabrication, Characterization and Commercialization*
		• Krishnendu Roy, Georgia Institute of Technology - *A Fully Synthetic Platform-nanotechnology for Selective Depletion of Immune-suppressor Cells in Cancer*
		• Sangyong Jon, Korea Advanced Institute of Science and Technology - *PEGylated Bilirubin Nanomedicine: a New Therapeutics for Various Inflammatory Diseases*
		• Tejal Desai, University of California, San Francisco - *Designing Nanostructured Materials to Enhance Therapeutic Delivery*
		• Yun-Hee Kim, Research Institute of National Cancer Center - *Versatility of Nucleic Acid for Cancer Theragnosis*
18:00-		**Banquet** **Buga, 5580 Clairemont Mesa Blvd, San Diego, CA 92117**

Day 2		
September 24, 2019 (Tuesday) Qualcomm Institute, UCSD		
Poster Session Co-chairs: Jo-Won Lee (NNFC) / Myung S. Jhon (CMU)	08:30-09:55 (5 min/ talk including Q&A)	■ **Introduction**
		• Hui Fang, Northeastern University - *Nanomeshing Adds Multifunctionality to Convectional Neuroelectrodes*
		• Hyung-Jun Im, Seoul National University - *Radiolabeled Europium Loaded Theranostic Liposomal Nanoparticles for Effective Radioisotope induced Photodynamic Therapy*
		• Jinhye Bae, University of California, San Diego - *A Micromachined Pico-calorimetric Sensor for Biological Systems*
		• Sun Il Choi, National Cancer Center - *Development of Pancreatic Cancer Targeting Aptamer using Cell-SELEX and Therapeutic Application*
		• Duygu Kuzum, University of California, San Diego - *Graphene-based Neural Interfaces for Probing Brain Activity*
		• Seongchan Kim, Korea Institute of Science and Technology - *Targeted Delivery of CRISPR/Cas9 Protein by Functional Nanoparticle for Highly Efficient Gene Editing in Cancer Cells in vitro and in vivo*
		• Hyowon Lee, Purdue University - *Self-clearing Implantable Biosensors for Neurodegeneration Research*
		• Dong Gil You, Sungkyunkwan University - *Chemiluminescence Resonance Energy Transfer-based Self-illuminuting Nanoparticles in Cancer Phototheranostics*
		• Jia Liu, Harvard University - *Functional Assembly of Bioelectronics for Tissue-wide Electrophysiology with Single-cell Resolution and Cell-type Specificity*
		• Jinmyoung Joo, Ulsan National Institute of Science and Technology - *Spatiotemporal Tracking of Intracellular Nanoparticles that has Multivalent Peptide Decoration*
		• Claire Soojung Hur, Johns Hopkins University - *Vortex-integrated Bio-Editors to Catalyze Personalized Treatment*
		• Mi-Hyun Choi, Konkuk University - *Somatotopic Map and Inter- and Intra-Digit Distance in Brodmann Area 2 by Pressure Stimulation*

Poster Session Co-chairs: Jo-Won Lee (NNFC) / Myung S. Jhon (CMU)	08:30-09:55 (5 min/talk including Q&A)	• Markita Landry, University of California, Berkeley - *Imaging Striatal Dopamine Release With a Non-Genetically Encoded Near-Infrared Fluorescent Nanosensor*
		• Chul Kim, Korea Advanced Institute of Science and Technology - *Miniaturized Energy-Efficient Integrated Neural Interfaces*
		• Taylor Canady, University of Illinois, Urbana Champaign - *Digital Resolution Detection of miRNA with Single Base Selectivity by Photonic Resonator Absorption Microscopy*
		• Sanghwa Jung, University of California, Berkeley - *High Throughput Evolution of Near-Infrared Serotonin Nanosensors*
		• Xiao Huang, University of California, San Francisco - *DNA-scaffolded Biomaterials Enable Modular and Tunable Control of Cellbased Cancer Immunotherapies*
	09:55-10:30	■ **Poster Exhibition**
Discussion / Working Groups	10:30-12:30	■ **Group Discussion Workshop** • Group 1 : Nanosensors Related to Human Cognition and Brain Research • Group 2 : Nanomedicine Focusing on Single Cell Level
12:30-13:30		**Lunch**
Wrap up Discussion & Recommendation	13:30-14:30	■ **Poster Award Presentation** ■ **Draw-up Recommendation to the Governments** ■ **Signature of Overall Summary and Recommendation** ■ **Closing Remarks**